APPENDIX 1 **LETTER OF APPROVAL BY THE FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY**

Mr N Botes
Department of Architecture
University of Pretoria
Pretoria
0028

Dear Mr Botes,

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

<u>Approval</u> is granted for the application with reference number that appears above.

1. This means that the research project entitled "PhD study: Critically assessing the selection of beginner students in architecture at the University of Pretoria (1971-2016)" has been approved as submitted. It is important to note what approval implies. This is expanded on in the points that follow.

2. This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Research Ethics Committee.

3. If action is taken beyond the approved application, approval is withdrawn automatically.

4. According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

5. The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof JJ Hanekom
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

APPENDIX 2 **QUESTIONNAIRE ON SELECTION FOR THE 2016 ACADEMIC YEAR AT SCHOOLS OF ARCHITECTURE IN SOUTH AFRICA**

QUESTIONNAIRE ON SELECTION FOR THE 2016 ACADEMIC YEAR AT SCHOOLS OF ARCHITECTURE IN SOUTH AFRICA

NOTE: Where necessary, the shaded text boxes in this questionnaire expand when you type in them.

Please answer the following questions with specific reference only to the intake for the 2016 academic year (i.e. for students who started studying early in 2016) at the institution that you represent.

SECTION   0.   SELECTION BASICS

0.1   Which of the following academic programmes in architecture did the institution you represent offer to beginner students in 2016? (please mark with **X**)

0.1.1 ☐ Undergraduate degree in architecture – BAS, BScArch or equivalent
(at NQF level 7 outcomes)

0.1.2 ☐ Diploma in architecture
(at NQF level 6 outcomes)

0.2   Was selection used to determine which applicants were admitted to the first year of study in either or both of these programmes for the 2016 academic year? (please mark with **X**)

☐ No   ☐ Yes

If you answered '**No**', there is no need to complete the remainder of the questionnaire. Thank you for your time. Please return this page to the sender.
or
If you answered '**Yes**' and the institution you represent offered **both degree and diploma programmes** to beginner students in architecture in 2016 (see question 0.1 above), please continue with question 0.3.
or
If you answered '**Yes**' and the institution you represent offered only **one academic programme** to beginner students in architecture in 2016 (see question 0.1 above), please continue to question 0.4 below.

0.3   Was the same selection procedure principally* used to determine which applicants were admitted for the degree and diploma programmes for the 2016 academic year? (please mark with **X**)

* Even if the minimum requirements for admission to a diploma and a degree course differed, an institution could still consider the same assessment tools – such as a portfolio, academic record and an interview – but possibly with different expectations or assessment outcomes. If this is the case, these selection procedures could be considered to be principally similar.

☐ No   ☐ Yes

If you answered '**No**', it will be necessary to complete a separate survey for each of the selection processes.

If you answered '**Yes**', please continue with question 0.4.

0.4   Please provide a brief summary of how selection was conducted for the admission of beginner students in your own words. It is only necessary to provide a synopsis as details will be asked in the subsequent sections of this questionnaire.

0.2.1 ☐

The following eight sections are based on the findings of an international survey[1] that has been adjusted, adapted and augmented for the South African context.

SECTION 1. ACADEMIC RECORD

1.1. Were the academic records of applicants considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

1.2. Which of the following academic results were considered during selection (please mark with **X**)

1.2.1. ☐ End of year Grade 11 secondary school results (e.g. for matriculants who had not yet received their final Grade 12 results)

1.2.2. ☐ Grade 12 final secondary school results (i.e. National Senior Certificate or final matric)

1.2.3. ☐ Results from other studies at tertiary level (if available or applicable)

1.2.4. ☐ Other/s (please specify; note that academic records exclude general scholastic assessments, the National Benchmark Test (NBT) or its equivalents, and/or psychometric tests; see Section 2)

1.2.5.

1.3 Which minimum academic requirements did applicants have to meet in order to be eligible for placement in the course? (e.g. NSC with admission for bachelor's studies and/or Mathematics at a minimum of 50%)

1.3.1.

1.3.2.

1.3.3.

1.3.4.

1.3.5.

1.3.6.

1.4. How were these minimum requirements considered during selection? (e.g. for the calculation of an Admission Point Score (APS) or the average for four subjects was calculated and used for ranking applicants for the next round etc.)

1.5. Were any exceptions to these minimum requirements ever considered for: (please mark with **X**)

1.5.1. ☐ Applicants who did not complete their matric in South Africa?

1.5.2. ☐ Older or transfer applicants?

1.5.3. ☐ Any other exceptions? (please specify below)

1.5.4.

1.6. What weighting was allocated to the academic record in determining if an applicant was selected?
(choose one and mark with an **X**)

1.6.1. ☐ It was considered but not formally weighted or

1.6.2. ☐ It was the only assessment tool used or

1.6.3. ☐ Significant and more important than other assessment tools or

1.6.4. ☐ Equally important to other assessment tools or

1.6.5. ☐ Less significant than other assessment tools.

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1 Goldschmidt, G., R. Sebba, C. Oren and A. Cohen. 2001. Who Should Be a Designer? Controlling Admission into Schools of Architecture. In *Designing in Context: Proceedings of Design Thinking Research Symposium 5*, eds. P. Lloyd and H. Christiaans, 277-295. Delft: Delft University Press.

1.7. In your opinion, is academic record a useful selection tool? (choose one and mark with an **X**)

1.7.1.		I am not sure or
1.7.2.		No value in selection or
1.7.3.		It has little value or
1.7.4.		It has some value or
1.7.5.		It has significant value.

1.8. Please briefly motivate your answer to the question above.

1.8.1.

1.9. Please comment below if you have any additional information or opinions on academic record as a selection tool for beginner students of architecture at your institution.

1.9.1.

SECTION   2. GENERAL SCHOLASTIC OR PSYCHOMETRIC TESTS

2.1 Were the outcomes of general scholastic assessments considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)
[These tests could include the National Benchmark Test (NBT) or its equivalents, and/or psychometric tests to examine a range of cognitive and scholastic abilities. They are generic and are not limited to schools of architecture. They are mostly administered by external bodies or practitioners such as vocational councillors or psychologists]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

2.2 Which of the following categories of tests did you consider during selection (please mark with **X**)

2.2.1 ☐ The National Benchmark Test (NBT)

If you marked the NBT above, please indicate which of the three NBT competency areas were considered?

2.2.1.1 ☐ Academic Literacy (AL)

2.2.1.2 ☐ Quantitative Literacy (QL)

2.2.1.3 ☐ Mathematics (MAT)

2.2.2 ☐ Psychometric Tests

2.2.3 ☐ Other/s (please specify below)

2.2.4 ☐

2.3 Please provide a brief description of how you used the test results as an assessment tool for selection.

2.4 What weighting was allocated to general scholastic or psychometric tests in determining if an applicant was selected? (choose one and mark with an **X**)

2.4.1 ☐ It was considered but not formally weighted or

2.4.2 ☐ It was the only assessment tool used or

2.4.3 ☐ Significant and more important than other assessment tools or

2.4.4 ☐ Equally important to other assessment tools or

2.4.5 ☐ Less significant than other assessment tools.

2.5 In your opinion, are these general scholastic or psychometric tests useful selection tools? (choose one and mark with an **X**)

2.5.1 ☐ I am not sure or

2.5.2 ☐ No value in selection or

2.5.3 ☐ It has little value or

2.5.4 ☐ It has some value or

2.5.5 ☐ It has significant value.

2.6 Please briefly motivate your answer to the question above.

2.6.1

2.7 Please comment below if you have any additional information or opinions on general scholastic or psychometric tests as a selection tool for beginner students of architecture at your institution.

2.7.1

SECTION 3. SPECIAL ARCHITECTURE TESTS

3.1 Were the outcomes of special architecture selection tests considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

[These tests can reveal aptitude for studying architecture, possibly including tasks that pertain to visual memory, spatial organisation, drawing, design etc.. They are taken only by applicants who apply to a specific school of architecture; unlike the previous category, these are designed for a specific school of architecture and are usually administered by that school, albeit in some instances with help of consultants.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

3.2 Please provide a brief description of how you used special architecture tests as an assessment tool for selection.

3.3 Which of the following aspects were tested in the special selection tests used for selection? (mark with **X**)

3.3.1		General knowledge
3.3.2		Three dimensional abilities
3.3.3		Reasoning
3.3.4		Visual communication skills
3.3.5		Linguistic communication skills
3.3.6		Creative potential
3.3.7		Other/s (please specify below)
3.3.8		

3.4 What weighting was allocated to special architecture tests in determining if an applicant was selected? (choose one and mark with an **X**)

3.4.1		It was considered but not formally weighted or
3.4.2		It was the only assessment tool used or
3.4.3		Significant and more important than other assessment tools or
3.4.4		Equally important to other assessment tools or
3.4.5		Less significant than other assessment tools.

3.5 In your opinion, are these special architecture tests useful selection tools? (choose one and mark with an **X**)

3.5.1		I am not sure or
3.5.2		No value in selection or
3.5.3		It has little value or
3.5.4		It has some value or
3.5.5		It has significant value.

3.6 Please briefly motivate your answer to the question above.

3.6.1	

3.7 Please comment below if you have any additional information or opinions on special architecture tests as a selection tool for beginner students of architecture at your institution.

3.7.1	

SECTION   4. INTERVIEWS

4.1 Were interviews with applicants used during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

[These interviews are usually face to face meetings between the applicant and an individual – possibly a member of staff, student or practitioner – or a panel of selectors. In some instances interviews are conducted via telephone or videoconferencing facilities.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

4.2 Please provide a brief description of how you used interviews as an assessment tool for selection.

4.3 By whom were the interviews conducted – please mark all the categories of participants with an X:

4.3.1   Administrators and non-academic staff

4.3.2   Academic staff

4.3.3   Students

4.3.4   Practitioners

4.3.5   Others (please specify below)

4.3.6

4.4 What weighting was allocated to interviews in determining if an applicant was selected? (choose one and mark with an **X**)

4.4.1   It was considered but not formally weighted or

4.4.2   It was the only assessment tool used or

4.4.3   Significant and more important than other assessment tools or

4.4.4   Equally important to other assessment tools or

4.4.5   Less significant than other assessment tools.

4.5 In your opinion, are interviews useful selection tools? (choose one and mark with an **X**)

4.5.1   I am not sure or

4.5.2   No value in selection or

4.5.3   It has little value or

4.5.4   It has some value or

4.5.5   It has significant value.

4.6 Please briefly motivate your answer to the question above.

4.6.1

4.7 Please comment below if you have any additional information or opinions on interviews as a selection tool for beginner students of architecture at your institution.

4.7.1

SECTION 5. PORTFOLIOS

5.1 Were portfolios considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

[A portfolio could include a variety of creative outputs, including design tasks or visual outputs usually prepared at home, or a selection of work prepared for another purpose but submitted as an indication of an applicant's abilities or strengths.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

5.2 Please provide a brief description of how you used portfolios as assessment tools for selection.

5.3 Which of the following categories of portfolio contents were considered during selection (please mark with **X**)

5.3.1 ☐ Portfolios with prescribed contents determined by the school of architecture and/or

5.3.2 ☐ Portfolios developed under supervision by the department or institution and/or

5.3.3 ☐ Open portfolios at the applicant's own discretion

5.3.4 ☐ Others (please specify below)

5.3.5

5.4 Were the formats and media for the portfolio prescribed for selection purposes? (please mark with **X**)

5.4.1 ☐ No or

5.4.2 ☐ Yes or

5.4.3 ☐ Partly.

5.5 Were the contents of the portfolios assessed as showcase or revelatory? (please mark with **X**)

5.5.1 ☐ Showcase: outcomes representing a selection of the best work by an applicant

5.5.2 ☐ Revelatory: outcomes that reveal an applicant's latent and/or patent abilities.

5.6 What weighting was allocated to the portfolio in determining if an applicant was selected? (choose one and mark with an **X**)

5.6.1 ☐ It was considered but not formally weighted or

5.6.2 ☐ It was the only assessment tool used or

5.6.3 ☐ Significant and more important than other assessment tools or

5.6.4 ☐ Equally important to other assessment tools or

5.6.5 ☐ Less significant than other assessment tools.

5.7 In your opinion, are portfolios useful selection tools? (choose one and mark with an **X**)

5.7.1 ☐ I am not sure or

5.7.2 ☐ No value in selection or

5.7.3 ☐ It has little value or

5.7.4 ☐ It has some value or

5.7.5 ☐ It has significant value.

5.8 Please briefly motivate your answer to the question above.

5.8.1

5.9 Please comment below if you have any additional information or opinions on portfolios as a selection tool for beginner students of architecture at your institution.

5.9.1

SECTION   6. PERSONAL STATEMENTS

6.1 Were personal statements in textual format, or essays by applicants that explained why they wished to study architecture, considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)
[These textual statements are usually prepared at home in the applicant's own time and could also mention why they wish to pursue studies at your institution.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

6.2 Please provide a brief description of how you used personal statements as assessment tools for selection.

6.3 What weighting was allocated to personal statements in determining if an applicant was selected?
(choose one and mark with an **X**)

6.3.1 ☐ It was considered but not formally weighted or

6.3.2 ☐ It was the only assessment tool used or

6.3.3 ☐ Significant and more important than other assessment tools or

6.3.4 ☐ Equally important to other assessment tools or

6.3.5 ☐ Less significant than other assessment tools.

6.4 In your opinion, are personal statements useful selection tools? (choose one and mark with an **X**)

6.4.1 ☐ I am not sure or

6.4.2 ☐ No value in selection or

6.4.3 ☐ It has little value or

6.4.4 ☐ It has some value or

6.4.5 ☐ It has significant value.

6.5 Please briefly motivate your answer to the question above.

6.5.1

6.6 Please comment below if you have any additional information or opinions on personal statements as a selection tool for beginner students of architecture at your institution.

6.6.1

SECTION 7. WRITTEN ARGUMENTS AND LITERACY

7.1 Were general written arguments considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

[These textual arguments or essays do not necessarily deal with an applicant's motivation for wanting to study architecture and are used more to test an applicant's ability to clearly communicate ideas and reasoning than to assess motivation. Answers could be prepared at home or without resources in a test environment.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

7.2 Please provide a brief description of how you used literacy and written arguments as assessment tools for selection.

7.3 What weighting was allocated to personal statements in determining if an applicant was selected?
(choose one and mark with an **X**)

7.3.1 ☐ It was considered but not formally weighted or

7.3.2 ☐ It was the only assessment tool used or

7.3.3 ☐ Significant and more important than other assessment tools or

7.3.4 ☐ Equally important to other assessment tools or

7.3.5 ☐ Less significant than other assessment tools.

7.4 In your opinion, are literacy and written arguments useful selection tools? (choose one and mark with an **X**)

7.4.1 ☐ I am not sure or

7.4.2 ☐ No value in selection or

7.4.3 ☐ It has little value or

7.4.4 ☐ It has some value or

7.4.5 ☐ It has significant value.

7.5 Please briefly motivate your answer to the question above.

7.5.1

7.6 Please comment below if you have any additional information or opinions on literacy and written arguments as a selection tool for beginner students of architecture at your institution.

7.6.1

SECTION   8. LETTERS OF RECOMMENDATION

8.1 Were general letters of recommendation from former or present teachers, employers or those who are acquainted with the applicant's abilities and/or character considered during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

8.2 Please provide a brief description of how you used letters of recommendation as assessment tools for selection.

8.3 What weighting was allocated to letters of recommendation in determining if an applicant was selected?
(choose one and mark with an **X**)

8.3.1		It was considered but not formally weighted or
8.3.2		It was the only assessment tool used or
8.3.3		Significant and more important than other assessment tools or
8.3.4		Equally important to other assessment tools or
8.3.5		Less significant than other assessment tools.

8.4 In your opinion, are letters of recommendation useful selection tools? (choose one and mark with an **X**)

8.4.1		I am not sure or
8.4.2		No value in selection or
8.4.3		It has little value or
8.4.4		It has some value or
8.4.5		It has significant value.

8.5 Please briefly motivate your answer to the question above.

8.5.1

8.6 Please comment below if you have any additional information or opinions on letters of recommendation as a selection tool for beginner students of architecture at your institution.

8.6.1

SECTION 9. WORKPLACE EXPERIENCE / JOB-SHADOWING

9.1 Were applicants required to job-shadow an architect or to gain first-hand workplace experience during selection for the admission of beginner students for the 2016 academic year? (please mark with **X**)
[Workplace experience is intended to reveal the nature of architectural practice or the professional environment to applicants.]

	No		Yes		Not as a rule

If you answered '**No**', please continue to the next section.
If you answered '**Yes**' or '**Not as a rule**', please continue by answering the following questions:

9.2 Please provide a brief description of how you used workplace experience as an assessment tool for selection.

9.3 What weighting was allocated to workplace experience in determining if an applicant was selected?
(choose one and mark with an **X**)

9.3.1 ☐ It was considered but not formally weighted or

9.3.2 ☐ It was the only assessment tool used or

9.3.3 ☐ Significant and more important than other assessment tools or

9.3.4 ☐ Equally important to other assessment tools or

9.3.5 ☐ Less significant than other assessment tools.

9.4 In your opinion, is workplace experience a useful selection tool? (choose one and mark with an **X**)

9.4.1 ☐ I am not sure or

9.4.2 ☐ No value in selection or

9.4.3 ☐ It has little value or

9.4.4 ☐ It has some value or

9.4.5 ☐ It has significant value.

9.5 Please briefly motivate your answer to the question above.

9.5.1

9.6 Please comment below if you have any additional information or opinions on workplace experience as a selection tool for beginner students of architecture at your institution.

9.6.1

SECTION 10. OTHER ASSESSMENT TOOLS

10.1 Were any other assessment tools, apart from those mentioned in sections 1 to 9, used for the selection of beginner students for the 2016 academic year at the institution you represent? (please mark with **X**)

10.1.1   No or

10.1.2   Yes (please identify the assessment tool and describe it below)

If you answered '**No**', please continue to the next section.
If you answered '**Yes**', please continue by answering the following questions:

10.2 What weighting was allocated to this assessment tool in determining if an applicant was selected?
(choose one and mark with an **X**)

10.2.1   It was considered but not formally weighted or

10.2.2   It was the only assessment tool used or

10.2.3   Significant and more important than other assessment tools or

10.2.4   Equally important to other assessment tools or

10.2.5   Less significant than other assessment tools.

10.3 In your opinion, is this assessment tool useful? (choose one and mark with an **X**)

10.3.1   I am not sure or

10.3.2   No value in selection or

10.3.3   It has little value or

10.3.4   It has some value or

10.3.5   It has significant value.

10.4 Please briefly motivate your answer to the question above.

10.4.1

10.5 Please comment below if you have any additional information or opinions on this other tool as a selection tool for beginner students of architecture at your institution.

10.5.1

SECTION 11. SELECTION IN GENERAL

11.1 With regard to the assessment tools that you used for selection (indicated in section one to ten), with which of the following statements do you most agree? (choose one and mark with an **X**)

11.1.1 ☐ The selection process used at this school of architecture, at best, has the function of checking candidates against a necessary threshold or

11.1.2 ☐ The selection process used at this school of architecture is suitable for checking candidates against a necessary threshold, but it may additionally render modest predictions of candidates' future performance or

11.1.3 ☐ The selection process used at this school of architecture can render reliable predictions of candidates' future performance in this school of architecture.

11.2 Is your answer in the previous question: (choose one and mark with an **X**)

11.2.1 ☐ based on your overall impression and perception or

11.2.2 ☐ is it the result of research through monitoring of records or analysis?

11.3 Regardless of your answer in the previous question, are you aware of any formal or informal research enquiries or surveys that investigate the selection of students for architecture programmes at your institution? (choose one and mark with an **X**)

11.3.1 ☐ No or

11.3.2 ☐ Yes (please clarify below)

11.4 Is the selection process used for the 2016 intake unique to the programme in architecture? (choose one and mark with an **X**)

11.4.1 ☐ Yes it is unique to the programme in architecture or

11.4.2 ☐ It is also used to select students for a limited number of other programmes at this institution or

11.4.3 ☐ It is used to select students for numerous other programmes at this institution or

11.4.4 ☐ Do not know.

11.5 For which intake or academic year (e.g. 1971) was selection first introduced for the architecture programme at your institution?

11.5.1 ☐☐☐☐ or

11.5.2 ☐ Do not know.

11.6 Which of the following do you consider to be a good measure of success of a student of architecture at your institution? (If you choose more than one, please rank in order of importance in the column on the right starting at 1 for the most important)

	X	RANK	
11.6.1	☐	☐	Academic results across the board
11.6.2	☐	☐	Academic results in design only
11.6.3	☐	☐	Completing the course in the minimum prescribed time
11.6.4	☐	☐	Personal development
11.6.5	☐	☐	Development of professional skills
11.6.6	☐	☐	Outcomes of national and/or international student competitions
11.6.7	☐	☐	Other (please specify below)

SECTION   12.   NUMBERS AND DEMOGRAPHICS

12.1 In total, how many applications did you receive for placement in the first year of study in architecture for the 2016 academic year? This number should include all applicants, including those who did not meet the minimum requirements for admission, withdrawals and unsuccessful applicants.

12.1.1 [   ][   ][   ][   ] or

12.1.2 [   ] Do not know / cannot disclose.

12.2 How does your answer above compare to the number of applications received in previous years?
(choose one and mark with an **X**)

12.2.1 [   ] Higher than previous years or

12.2.2 [   ] Similar to previous years or

12.2.3 [   ] Lower than previous years or

12.2.4 [   ] Do not know / cannot disclose.

12.3 In total, how many selected students started their studies in architecture as beginner or new students in your department at the beginning of 2016?

12.3.1 [   ][   ][   ][   ]

12.4 How does your answer above compare to the number of beginner students of previous years? (choose one and mark with an **X**)

12.4.1 [   ] Higher than previous years or

12.4.2 [   ] Similar to previous years or

12.4.3 [   ] Lower than previous years or

12.4.4 [   ] Do not know / cannot disclose.

12.5 Was the annual intake of beginner students in architecture restricted? (choose one and mark with an **X**)

12.5.1 [   ] No, there is no limit on the number of students admitted every year or

12.5.2 [   ] Yes, only a limited number of students were admitted or

12.5.3 [   ] Do not know / cannot disclose.

12.6 Did demographic data play a role in the composition of the 2016 cohort? (choose one and mark with an **X**)

12.6.1 [   ] No or

12.6.2 [   ] Yes

If your previous answer was '**Yes**', which of the following did you consider? (mark with **X**)

12.6.2.1 [   ] Population group (race)

12.6.2.2 [   ] Gender

12.6.2.3 [   ] Nationality

12.6.2.4 [   ] Other (please clarify below)

12.6.2.5 [   ]

SECTION   13.   CHANGES

13.1. How would you change, improve, refine or revise your current selection process? Please discuss or motivate briefly.

This is the end of the questionnaire. Thank you for your time.
Kindly return the completed questionnaire, together with the informed consent form, to the researcher with out delay.

APPENDIX 3 **DRAMATIS PERSONAE**

This appendix records short biographies of the Heads of the Department of Architecture at UP for the period between 1943 and 2016. The entries are presented in chronological order according to the respective dates of tenure for each Head.

MEIRING, ADRIAAN LOUW (Att)

BORN: 4 May 1904
DIED: February 1979
QUALIFICATIONS: BA (Cape town) 1924
                   BArch (Liverpool) 1932
TENURE AS HEAD: 1 March 1943 – 1966
SOURCES: Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2364;
                   Meiring (1961); UP (1987a:69)
MENTIONED IN: Chapters 5.5.1, 5.5.3, 5.5.4

Meiring was the first Professor of Architecture at UP. He matriculated from the Paarl Afrikaans Boys' High School and studied Philosophy and Languages at UCT where he graduated in 1924. In 1926 he became a junior in the offices of Louw and Louw in the Paarl before transferring to their office in Cape Town and subsequently attended the University of Liverpool School of Architecture between 1929 and 1932, receiving a first class honours degree before returning to practice at Louw and Louw in Cape Town.

In 1943 Meiring accepted the appointment to the new Chair of Architecture at UP and subsequently designed a number of buildings for the Institution, including the first Boukunde Building that housed the Department on the Hatfield campus. By 1959 he had gone into partnership with D.F.H. Naudé and practiced as Meiring and Naudé. The partnership was notably responsible the SABC building (1955) in Sea Point, Cape Town, and the Transvaal Provincial Administration Headquarters (1962) with Moerdyk and Watson in Pretoria. Both buildings pay homage to Brazilian modernity and are considered exemplary buildings for their time. Gerneke (1998:218) praises the provincial headquarters building for its high standards of detailing and opines that its "[…] standard of design did much to finally consolidate Modern civic architecture in South Africa." In 1956 he was awarded with the Medal of Honour for Architecture by the South African Academy for Science and Arts (Afrikaans: *Suid-Afrikaanse Akademie vir Wetenskap en Kuns*).

Meiring undertook pioneer studies of Ndebele building and published articles on the subject and was instrumental in establishing one of the early outdoor museums on Ndebele culture. He also made a significant contribution to the field of acoustics, in which he was keenly interested.

BURGER, ALEWYN PETRUS

BORN: 30 October 1933
QUALIFICATIONS: BArch (Pretoria) 1956
TENURE AS HEAD: 1 June 1967 – 1984
SOURCES: UP (1987a:69); Personal communication with the researcher
MENTIONED IN: Chapters 5.5.4, 5.7.2, 5.7.3, 5.7.6, 5.7.11, 5.8.2

Burger was born in Paulpietersburg in Natal (now KwaZulu-Natal) and matriculated from the Hoërskool Helpmekaar in Johannesburg. After graduating in architecture from UP in 1956 he worked in the practice of F.J. Wepener for two years and subsequently was appointed as a full-time lecturer at his alma mater

until 1961 when his appointment was turned into a part-time one so as to allow him time to practice in the office of the well-known Pretoria-based architect Brian Sandrock. From 1963 he stood in practice full-time and was involved in the design and execution of several buildings at Pelindaba for the erstwhile South African Atomic Energy Board, the iconic main building complex of the University of South Africa (UNISA) at the dramatic southern entrance to Pretoria, a number of buildings for UP including the main Administration Building, and several hospitals. He returned to teaching full-time when he was appointed to the Chair and as Head of Department in 1967.

He undertook studies on specific church typologies, including the acoustics and application of colour therein, and toured Italy, among other destinations, to research the influence of monastic orders on Romanesque architecture in the eleventh and twelfth centuries. Burger was a founding member of the South African Council of Architects (the legal predecessor of SACAP), sat on the commission that investigated the education of architects in South Africa in 1976 and served on the Advisory Committee of the NBRI of the CSIR for the period of his tenure as Head. After he left UP he joined the office of Steyn and Viljoen Architects in Pretoria until his retirement in 1996.

HOLM, DIETRICH (Dieter)

BORN: 3 March 1936
QUALIFICATIONS: BArch (Pretoria) 1960
                  MArch (Pretoria) 1971
                  DArch (Pretoria) 1985
TENURE AS HEAD: 1 October 1985 – 31 December 1996
SOURCES: UP (1996a:202, 2002:194-196); Personal communication with the researcher
MENTIONED IN: Chapters 5.8.2, 5.8.3, 5.8.4, 5.8.7

Holm was born in Pietermaritzburg in Natal (now KwaZulu-Natal) and matriculated in Brits northwest of Pretoria. He worked at the practices of Burg, Lodge and Burg as well as Meiring and Naudé as a student. He secured a position at the firm of Brian Sandrock Architects immediately after completing his studies in 1960 and worked as project architect for laboratories and other specialised facilities at the Pelindaba. He co-founded the practice of Holm and Holm with his brother Albrecht in 1964; this collaboration won numerous architectural competitions and awards over more than three decades.

Holm was appointed as a lecturer at the Department of Architecture at UP in May 1967 and served as an Associate Professor from 1973 until he was appointed to the Chair and as Head of Department in 1985. In the same year he obtained the first doctoral degree in architecture awarded by UP. His study focussed on the thermal effect of leaf cover on outside walls, thereby continuing the Department's research on the thermal performance of buildings and making a formative contribution to its ongoing endeavours in the field of sustainable practices in the built environment. He also made it his task to raise the number of postgraduate qualifications and the research profiles of the members of staff and supervised more than thirty students who obtained their master's and doctoral degrees. Following his tenure as Head he was

appointed to lead the newly founded section for Research and Postgraduate Studies in the Division for Environmental Design and Management (reconstituted as the School for the Built Environment in 2000) until he retired from UP in 2001. He has since continued working in the field of renewable energy and has especially coordinated and consulted on projects that involve solar energy. He has travelled widely and published extensively. Among his outputs are more than eighty articles, editorial contributions, entries in encyclopaedias, books and chapters in books and he has delivered more than sixty papers at national and international conferences.

Holm and his family have, since 1974, lived in a self-designed, autonomous home that relies entirely on sustainable sources of energy and is water self-sufficient.

LE ROUX, SCHALK WILLEM

BORN:	28 November 1945
QUALIFICATIONS:	BArch (Pretoria) 1971
	MArch (Pretoria) 1987
	PhD Architecture (Pretoria) 1992
TENURE AS HEAD:	1 January 1997 – 31 December 2003
REFERENCES:	Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2226
	Prinsloo (2017); Personal communication with the researcher
MENTIONED IN:	Chapters 1.1, 5.9.2, 5.9.3, 5.9.4, 6.5.6, 6.5.7

Le Roux was born in Heidelberg, Cape Province (now Western Cape), and matriculated in nearby Barrydale. While studying towards his Bachelor of Architecture degree at UP he served on the Central Students' Representative Council and was editor of the student paper *Die Perdeby*. He graduated in 1971 and then worked in the office of J. Anthonie Smith Architect in Cape Town for two episodes that were interrupted with Italian and Renaissance studies that he undertook at the Universities of Perugia and Rome. During 1974 and 1975 he taught Afrikaans and Mathematics at Athlone High School in Bridgetown, Athlone in Cape Town, before returning to Pretoria where he took up a position at the office of Brian Sandrock. He founded Schalk le Roux Architect in 1984; the practice was later known as Schalk le Roux Uys Greyling Architects.

He was appointed as lecturer at the Department in 1977, studied French and Arabic at UP and Arabic Institutions at Université d'Aix-en-Provence and obtained his master's and doctoral degrees at UP before being appointed to the Chair and as Head of Department commencing in 1997. During his tenure the programmes in architecture and landscape architecture, and later interior architecture, were merged into a single managerial unit that required a major review of the programmes' structures and curricula. This was successfully implemented with Prof. Roger C. Fisher as Curriculum Coordinator.

He has travelled widely, mainly in the Middle and Near East and North Africa, and has written extensively on his special interests – the architecture of Islam, mosques of South Africa and slaves in the building industry at the Cape. In addition he has authored more than a hundred articles, reports, books and

chapters in books on aspects of architectural education, cultural history and the history of architecture, heritage studies, conservation and restoration, landscape architecture and critiques of contemporary designs. Le Roux served on a multitude of professional committees, advisory councils and boards and he has adjudicated competitions and awards of merit in South Africa and Namibia.

His studies in urban conservation, culminating in three published volumes of *Plekke en Geboue van Pretoria* (1990-1993) and six reports to the local authority, were rewarded with an Award of Merit in Conservation by the ISAA in 1995. In 2002 the South African Academy for Science and Arts (Afrikaans: *Suid-Afrikaanse Akademie vir Wetenskap en Kuns*) awarded him with a Special Medal of Honour for the promotion of architecture and he received an Honorary Membership from the South African Institute of Landscape Architects in 2004.

FISHER, ROGER CHARLES

BORN:	2 February 1951
QUALIFICATIONS:	BArch (Pretoria) 1982
	MArch (Pretoria) 1989
	PhD Architecture (Pretoria) 1992
TENURE AS HEAD:	ACTING: 1 January 2004 – 31 August 2004
	ACTING: 1 September 2008 – 31 December 2008
	ACTING: 1 October 2014 – 30 September 2015
REFERENCES:	Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2103
	Fisher (2017)
MENTIONED IN:	Chapters 4.6.8, 5.5.3, 5.7.3, 5.8.3, 5.8.4, 5.9.2, 5.9.3, 5.9.4, 6.5.2, 6.5.3, 6.5.4

Fisher was born in Rondebosch, Cape Town, and matriculated from Clapham High School in Pretoria. He worked as archive clerk and laboratory assistant before settling to study architecture at UP, from where he graduated in 1982. His early practice experience was gained in the office of Martin Engelbrecht, at Moerdyk Stucke Harrison Serfontein Viljoen and Partners, and at Index Design under Savas Couvaras. He went on to co-found the practice of Smit and Fisher Architects.

In 1986 he was appointed as junior lecturer in the Department, where he also completed his master's and doctoral studies while teaching in the studio and in the subjects of history, theory and construction. In 1997 he was tasked with the coordination of a new course structure and curriculum for the three programmes that, over the course of the subsequent three years, were integrated under the umbrella of the Department. Teaching in the new interdisciplinary framework was fully integrated by 2001 and it has since become a hallmark of the School. He directed the project for the digitisation of architectural archival material deposited at UP and made accessible through UPSpace. This project has become recognised as the inception model for other such programmes.

He has served on the adjudication panel for many rounds of the awards of merit and excellence on behalf of SAIA, reviewed contributions to local academic journals and has been guest editor or co-editor for special issues of *Architecture South Africa*, among others. His writings, evidenced in articles, papers,

books, chapters in books, technical and other reports, extend to enquiries on critical regionalism, the environmental history of the South African built environment and cultural landscapes, the ecotropic approach to sustainability studies, interdisciplinary research, architectural education, visual literacy and botany. He has also contributed prolifically to South African heritage and conservation with his participation in more than thirty surveys and policies, advised the Northern Gauteng Region of the National Monuments Council, served as Councillor to the Mpumalanga Province Heritage Council, chaired the Mpumalanga Heritage Resource Agency Permit committee and continues to act as heritage consultant.

The Heritage South Africa Gold Medal was bestowed on him in 2013 in recognition of his contribution to the field. In 2010 he was the recipient of the Writers and Critics Award from SAIA and a recent publication that he co-edited, *Eclectic ZA Wilhelmiens: A shared Dutch built heritage in South Africa* (Bakker, Clarke & Fisher 2014), was awarded an Award of Excellence by SAIA in 2016, among many other accolades it received.

Fisher was appointed as Extraordinary Professor upon his retirement from UP and has since acted as Head of Department at critical times in the Department's recent history. He has also acted in an advisory capacity to other schools of architecture and continues to serve on the Education and RPL Committees of SACAP.

JOUBERT, 'ORA

BORN: 17 August 1959
QUALIFICATIONS: BArch (Pretoria) 1983
                  MScArch (Pennsylvania State) 1985
                  PhD Architecture (Natal) 1999
TENURE AS HEAD: 1 September 2004 – 31 August 2008
REFERENCES: Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2110
                  Burger (2006); Personal communication with the researcher
MENTIONED IN: Chapters 1.2.1, 5.9.2, 6.5.2, 6.5.3, 6.5.6, 6.5.7

Joubert was born in Pretoria and matriculated from the Afrikaanse Hoër Meisieskool Pretoria. She graduated in architecture from UP and went on to obtain a master's degree in the United States with a dissertation entitled 'Contemporary design theory – a curriculum for architectural tuition'. She wrote her PhD thesis as an assessment of the genesis of the modern aesthetic.

Between 1986 and 1989 she worked as in-house architect for the Get Ahead Foundation, a township-based, non-governmental organisation, in which capacity she also initiated art and architectural programmes for township children. She has been in private practice since 1990 has lectured in part and full-time capacities at Wits, UKZN, UP, at the School of the Art Institute in Chicago and the Washington University, St. Lewis. She was appointed as Head of the Department of Architecture at UFS in

Bloemfontein in 2001 and was subsequently appointed to the Chair and as Head of Department at UP. She returned to private practice after her tenure and continues to serve as Affiliated Professor at UFS.

Her work has received numerous design awards – including eight Awards of Merit from SAIA and its regional chapters, the Corobrik House of the Year Award, three Dulux Colour Awards and a landscape design award – and was received to critical acclaim in more than fifty publications, including Australian, British, Chinese, Hungarian and Russian journals. She was cited in 2001 as one of the most internationally esteemed architects under the age of forty (Cargill-Thompson 2001) and her work was included in *The Phaidon atlas of contemporary world architecture* (Phaidon 2004). She edited and convened a reference book on contemporary South African architecture, *10+ years 100+ buildings: Architecture in a democratic South Africa* (Joubert 2009), that was awarded with an Award of Excellence by SAIA. At the time of writing she was compiling a companion book on the most meritorious final-year dissertation projects by students of architecture in South Africa.

BAKKER, KAREL ANTHONIE

BORN:	3 March 1956
DIED:	19 November 2014
QUALIFICATIONS:	BArch (Pretoria) 1981
	MArch (Pretoria) 1993
	PhD Architecture (Pretoria) 2000
TENURE AS HEAD:	1 January 2009 – 19 November 2014
REFERENCES:	Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2234
	Curriculum Vitae (Archive, Department of Architecture, UP)
MENTIONED IN:	Chapters 5.7.3, 5.8.3, 5.7.10, 5.9.3, 6.5.2, 6.5.3.

Bakker spent his early childhood in the town of Amalia in the western Transvaal (now the North West Province) and matriculated from Hoërskool Menlopark in Pretoria before graduating in architecture from UP in 1981. His professional career started at the public utility company Eskom, where he raised through the ranks to the position of senior architect.

He joined the staff of the Department in 1986 and established himself as part of the history study group – a pursuit that he continued to nurture during the course of his career. He coordinated the subject course of History of the Environment and his special fields of interest pertained to classical architecture (both of his postgraduate studies focused on aspects of the Ionic capital), the architectural histories of African societies, heritage assessment and management, including mapping, cultural landscapes and intangible heritage, and urban conservation and regeneration. His work as a heritage consultant, notably with Drs Gerhard-Mark van der Waal and Robert de Jong under the label of Cultmatrix, set the standard in respect of heritage impact assessment in South Africa and initiated his involvement with ICOMOS and subsequent contributions to several pivotal world heritage site projects in southern and east Africa and on the islands of Mauritius and Zanzibar on behalf of the UNESCO World Heritage Centre.

Bakker was appointed to the Chair and as Head of Department in 2009 and his appointment was renewed in 2013. He served on the board of the ArchiAfrika Foundation, various SAIA committees and awards of merit adjudication panels, as well as those that validated schools of architecture on the behalf of SACAP. His scholarly contribution amounts to more than a hundred refereed articles, papers, reports, technical reports, books, chapters in books and published conference proceedings. He attended and contributed to seventy-five conferences and collaborated with fifteen national and international researchers, teams and practitioners. The last publication that he co-edited, *Eclectic ZA Wilhelmiens: A shared Dutch built heritage in South Africa* (Bakker, Clarke & Fisher 2014), was awarded an Award of Excellence by SAIA in 2016, among many other accolades it received.

DU PLESSIS, CHRISNA

BORN: 2 February 1965
QUALIFICATIONS: BArch (Pretoria) 1991
                  MArch (Pretoria) 1999
                  PhD Built Environment (Salford, United Kingdom) 2009
OTHER: DTech (Chalmers University of Technology, Sweden) 2010 (*honoris causa*)
TENURE AS HEAD: 1 October 2015 –
REFERENCES: Artefacts (2017) http://www.artefacts.co.za/main/Buildings/archframes.php?archid=3910
                  Personal communication with the researcher
MENTIONED IN: Chapters 6.5.2, 6.5.4

Du Plessis was born in Sasolburg and matriculated in Bethal in the eastern Transvaal (now Mpumalanga). She obtained her BArch and MArch (by research) at UP and was awarded a PhD by the University of Salford for her thesis on an approach to studying urban sustainability from within an ecological worldview. Her field of expertise is sustainability in the built environment and she has applied this in a body of work that include the fields of housing, construction industry performance, urban and human settlement development and infrastructure design.

She lectured history and design at the Department on a part-time basis in the late 1990s before joining the CSIR where she was promoted to principal researcher for the built environment. Du Plessis was appointed as Associate Professor in the Department of Construction Economics at UP in May 2011 and as Head of the Department of Architecture in October 2015.

She is a Jubilee Visiting Professor to Chalmers University of Technology in Sweden and teaches a module on sustainability blueprints in an MSc programme at the National University of Singapore. She represented South Africa in the Earth Charter drafting and consultation process, has contributed to national and international strategy and policy programmes on sustainable settlements and serves as the Theme Coordinator for Sustainable Construction for the International Council for Research and Innovation in Building and Construction (CIB). Her scholarly outputs tallies to more than a hundred items, including the book *Designing for Hope – Pathways to regenerative sustainability* that she co-authored (Hes & Du Plessis 2014) and that received the AfriSam-SAIA Award for Research in Sustainability in 2016.

APPENDIX 4 **MEMORANDUM OF 29 JULY 2015**

Review of the procedures for admission by selection for the undergraduate programmes in architecture, interior architecture and landscape architecture at the Department of Architecture, University of Pretoria

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selection

THIS DOCUMENT WILL BE DISTRIBUTED ELECTRONICALLY TO:

Acting Director: Department of Academic Administration:
    Mrs Cila Myburgh

Dean: Faculty of Engineering, Built Environment and Information Technology
    Prof Sunil Maharaj

Chairperson: School for the Built Environment
    Prof Tinus Maritz

Members of the Review Panel:
    Mr Marcus Holmes
    Prof Sarah Howie
    Mrs Liz Jones
    Prof Duard Kleyn

Review of the procedures for admission by selection for the Undergraduate Programmes in Architecture, Interior Architecture and Landscape Architecture at the Department of Architecture, University of Pretoria

MEMORANDUM

29 July 2015

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APPENDICES

MEMORANDUM

1.   INITIATIVE

The Acting Head of the Department of Architecture, Prof Roger C. Fisher, gave an undertaking to the Director of Academic Administration, Dr Dawie Marais, to formally review the selection procedure used for undergraduate admissions by the Department at a meeting on 20 January 2015. As there is no comparable precedent at this institution or at other local schools of architecture, the following protocol was determined.

2.   MEMBERS OF THE REVIEW PANEL

Members who represented professional, legal, academic and student administration expertise were invited to form the review panel. They were (in alphabetical order):

Mr Marcus Holmes

BArch (Witwatersrand); Principal at Fassler Kamstra + Holmes Architects; Professional Architect (SACAP); Chartered Member (RIBA); Associate Member (Association of Arbitrators)
marcus.holmes@fkh-architects.com

Prof Sarah Howie

BA (Stellenbosch) BAHons (Cape Town) MEd (Witwatersrand) PhD (Twente); Professor and Director, Centre for Evaluation and Assessment, Faculty of Education, University of Pretoria
sarah.howie@up.ac.za / rosalie.loots@up.ac.za

Mrs Liz Jones

Head: Student Administration, Faculty of Engineering, Built Environment and Information Technology, University of Pretoria
liz.jones@up.ac.za

Prof Duard Kleyn

BA, LLB, LLD (Pretoria); Professor in the Department of Jurisprudence and former Dean, Faculty of Law, University of Pretoria
duard.kleyn@up.ac.za

The panel was hosted by Prof Roger C. Fisher, Extraordinary Professor and Acting HoD, Department of Architecture, University of Pretoria and Nico Botes, Convenor: Selection (Coursework Programmes), Department of Architecture, University of Pretoria.

3.   TERMS OF REFERENCE

The University of Pretoria requires that its selection procedures for entry into the Programmes in Architecture, Interior Architecture and Landscape Architecture in the Department of Architecture, Faculty of Engineering, Built Environment and Information Technology, are:

EQUITABLE – That each applicant is equally considered and has an even-handed chance for gaining entry into their programme of choice based on the criteria for scrutiny and selection;

TRANSPARENT – That the system of consideration, exclusion and selection can be explained and elucidated on enquiry;

DEPENDABLE – That should the same process be followed again it will deliver the same results;

DEFENDABLE – That the deliberations and decisions reached in the process of exclusion and selection are able to be defended if subject to litigation.

4.   DOCUMENTATION

The documentation presented to the panel comprised the following:

4.1 The convenor's report (see Appendix One) with its appendices (see Appendix Two);

4.2 The selection files of prospective students who applied for the 2015 academic year, namely:

- applicants who were selected for the 2015 cohort (all three programmes);
- applicants who were not selected but who were shortlisted for interviews (all three programmes);
- applicants who were not shortlisted for interviews and thus not selected (all three programmes);
- postal selection applicants (all three programmes);

4.3 The annual first year questionnaires on selection from 2012, 2013 and 2014;

4.4 A statistical analysis of the responses to the first year questionnaires for 2012, 2013 and 2014;

4.5 A printed record of the Facebook support page for applicants from 2014 (in support of selection procedures for the 2015 intake);

4.6 Digital sound recordings of all the selection interviews for the 2015 cohort;

4.7 Two typical complaints and the convenor's written response.

5.   TIMETABLE OF EVENTS

10 April 2015

The main body of the convenor's report was made available to the review panel by e-mail.

13 April 2015

The panel met the Boukunde Building. As Prof Howie could not attend this session, it was decided that the procedure would be presented to her at a later date. Prof Fisher welcomed all, introduced the panel members, explained the necessity for a review process and referred all to the terms of reference.

Nico Botes introduced the panel to the documentation. The appendices to the report were presented sequentially in order to familiarise the panel with the documents appended to the main report. The panel perused the documentation, posed questions, reviewed recordings of selection interviews and concluded with a discussion and some recommendations. In closing it was decided that those members of the panel who so wished make their recommendations in separate reports to Prof Fisher (see Appendix Three).

18 May 2015

Nico Botes presented the documents to Prof Howie at her office on the Groenkloof Campus. Due to time limitations the documentation was left with her to allow her time to study them.

6.   RECOMMENDATIONS TO THE UNIVERSITY OF PRETORIA

6.1 Technical Recommendation

In her report Prof Howie recommended a revision of the layout of selection documents where Afrikaans and English are used side by side. The current format increased the reading load and presented difficulty for applicants in completing the forms.

[NOTE: This recommendation is already being considered for review and implementation.]

6.2 General Recommendations

The panel's findings unanimously support the selection procedures used by the Department of Architecture for admission to the undergraduate programmes. The panel found them to be equitable, transparent, dependable and defendable, as set out in the terms of reference.

In her report Prof Howie concluded that the "philosophy, design and processes adopted by the Department of Architecture for its selection process is valid and reliable in addition to being fair. The process is comprehensive, transparent and supportive to applicants. It combines a variety of appropriate assessment strategies which are relevant to the field and appropriately challenging to the applicants."

Members of the panel additionally commented that they were satisfied as to the "adequacy [and] appropriateness" (Holmes), that the procedures are "in line with our constitutional values" (Kleyn) and that it is a process with "quite some innovation and appropriate thinking for the 21st century" (Howie).

7. CONCLUSION

In light of the panel's recommendations and findings the Department of Architecture of the University of Pretoria will proceed with the selection programme as it has been done in the recent past.

The Department of Architecture, on behalf of the University of Pretoria, thanks all the members of the review panel for their consideration, time, contributions and constructive comments.

Please contact the Convenor: Selection should additional information or documentation be required.

Prof. Roger C. Fisher
Extraordinary Professor and Acting Head
Department of Architecture, University of Pretoria
roger.fisher@up.ac.za

Nico Botes
Convenor: Selection (Coursework Programmes),
Department of Architecture, University of Pretoria
nico.botes@up.ac.za

29 July 2015

APPENDIX ONE

THE CONVENOR'S REPORT TO THE REVIEW PANEL

1. TERMS OF REFERENCE

The University of Pretoria requires that its selection procedures for entry into the Programmes in Architecture, Interior Architecture and Landscape Architecture in the Department of Architecture, Faculty of Engineering, Built Environment and Information Technology, are:

EQUITABLE
That each applicant is equally considered and has an even-handed chance for gaining entry into their programme of choice based on the criteria for scrutiny and selection;

TRANSPARENT
That the system of consideration, exclusion and selection can be explained and elucidated on enquiry;

DEPENDABLE
That should the same process be followed again it will deliver the same results;

DEFENDABLE
That the deliberations and decisions reached in the process of exclusion and selection are able to be defended if subject to litigation.

2. BRIEF HISTORY AND OVERVIEW

2.1. Introduction

The principle of admission by selection at higher education institutions is generally motivated by there being numbers of applications exceeding the numbers of places available for admission. With only a few exceptions (notably the schools of architecture at public universities in Argentina), selection is the global norm used to admit students to schools of architecture.

By tradition the design studio is regarded as the primary locus of architectural education and therefore statutory and other validation bodies – including the South African Council for the Architectural Profession (SACAP), the Royal Institute of British Architects (RIBA) and the Commonwealth Association of Architects (CAA) – explicitly require that at least half of all formal learning activities must be studio-based. Considering that studios are typically resource intensive learning environments, their capacity determines – and mostly limits – the number of places schools of architecture can offer to prospective students.

Since 2007 the number of applications received from prospective first year students by the Department of Architecture at the University of Pretoria (UP) has tallied to between 1 000 and 1 500 annually; this translates to at least a ten-fold over subscription. We are therefore compelled to select applicants for admission. The majority of prospective students (typically between 65% and 75%) apply for admission to the programme in architecture. Table 1 breaks down the number of applications received per programme for the 2015 academic year.

TABLE 1: Number of applications received per programme for the 2015 academic year compared to available places

PROGRAMME	NUMBER OF APPLICATIONS RECEIVED*	MAXIMUM NUMBER OF PLACES AVAILABLE
Architecture	784	50
Interior Architecture	161	25
Landscape Architecture	190	25
TOTAL	**1,135**	**100**

*   Generated by PeopleSoft enquiry on 11 September 2014.

2.2. Selection at the Pretoria School of Architecture (1971 – 2006)

Episode one: 1971 – 1994

The notion of selection at the Pretoria School of Architecture was first prompted toward the end of the 1960s when, between 1967 and 1968, the number of applications almost doubled.[1] As selection was not a common practice at the time, especially not at local schools of architecture, research was undertaken in collaboration with the Department of Psychology at UP. A history of high attrition rates, especially amongst first year students, the subsequent financial losses to student and state, and aspirations to academic excellence contributed to motivate the research. A doctoral thesis[2] in psychology by Prof Wynand Herholdt followed that laid the groundwork for the ensuing implementation of a procedure to select beginner students for the programme in architecture.

Between 1971 and 1994 selection was, for the most part, based on Herholdt's research and consisted of:
- a battery of psychometrics-based tests,
- the applicant's academic record,
- and finally an interview.

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1   Kemp, J.T. 1991. Keuring van argitektuurstudente aan die Universiteit van Pretoria 1971-1990. (Departmental Report; Archive Item 6617, Department of Architecture, University of Pretoria).

2   Herholdt, W.vdM. 1972. 'n Keuringsprogram vir argitektuurstudente. DPhil thesis, University of Pretoria, Pretoria.

The process was empirically driven and informed by a pragmatic-scientific stance. The most significant result, according to departmental records, was that attrition during the first year of study dropped from 42% (1955-1964) to 10% (1971-1986). Considering the narrow band of the population who had access to the University under the Apartheid regime, it should be noted that up to 90% of cohorts in the late 1960s and early 1970s were white male students whose home language was Afrikaans.

Episode two: 1995 – 2006

Herholdt's system lost its credibility after 1994. Its demise was driven by managerial changes resulting from the first democratically elected government's reform of higher education.

Between 1995 and 2006 selection was based on:
- the applicant's academic record expressed as the Matriculation Score (M Score);
- Interviews were still held to fill any available places in January before lectures commenced; this meant that only a small portion of applicants were interviewed.

At the same time far-reaching changes to curricula and programme structures were implemented by the University and the Department. It saw the programmes in architecture, interior architecture and landscape architecture incorporated into one academic unit that offered a core curriculum in an equifinal, homologous structure with a joint first year and a second tier of postgraduate degrees for purposes of professional registration.

With the M Score being an easy system to manage, selection was, for the most part, relegated to a purely administrative process. Statistically this was a mixed success: attrition among first year students in the new generic first studio fluctuated (17.7% in 2004, 6% in 2005 and 7.3% in 2006) but remained higher than the average for all new first year students at the University of Pretoria for the corresponding years. Despite the fact that only matriculants with results (far) above the average were admitted, the Department's graduation rate deteriorated to far below the average for all three-year programmes at UP.

Towards episode three

By 2005 serious concerns were raised over two issues relating to the admission of undergraduate students: the lack of demographic representivity in the composition of the student body, and the validity of the M Score as the only yardstick for admission. The M Score favoured the admission of white female applicants, who were by far the majority of the annual intake, but far fewer at the time of graduation. The general perception was that students who were not ideally suited to pursue studies in design were automatically admitted. This was to the detriment of the majority, who were overlooked even if they did meet the published minimum requirements for admission. It was clear that selection procedures had to be reviewed and that the scope of assessment tools used for the admission of beginner students had to be broadened.

While the M Score was purportedly to serve as an equal-opportunity formula, in reality it ignored the legacy of Apartheid education and its continuing impact on prospective students, such as the unequal opportunities applicants from poorly resourced communities have. Selection therefore had to be transformed to an inclusive process so as to offer all applicants meeting the minimum requirements equal opportunities to compete for admission on their own merit.

A matrix of cumulative considerations was therefore developed from a normative position informed by the architectural disciplines and the specific nature of its academic presentation at this institution, one that reflected the fundamentally complex nature of spatial design, but also embraced the Department's ethos of interdisciplinary teaching. In this context the notion of a formulaic ideal applicant profile was rejected, as this would have been contrary to the ecosystemic approach and principles of process-driven generative design that the Department subscribes to and for which our graduates are valued.

3.   STATUS QUO

A redesigned selection procedure was subsequently implemented during 2006 for the intake of 2007; after nine years of refinement the following assessment tools were used to select the cohort for 2015:

ROUND 1: ACADEMIC RECORD
1. Applicants must meet the following minimum published requirements:
    - a National Senior Certificate endorsed for Bachelor's studies,
    - a minimum of 50% in Mathematics and Physical Science (for the programme in landscape architecture the latter may be substituted by Geography or Life Sciences, formerly Biology),
    - a minimum of 60% in either English or Afrikaans,
    - and an Admission Points Score (APS) of at least 27 out of a possible 42.

ROUND 2: HOME ASSIGNMENTS
2. Biographical questionnaire and a short essay
3. Drawings and other assignments
4. Practice visit

ROUND 3: TEST
5. A special architecture aptitude test during which performance assessment is emphasised and a broad spectrum of skills are assessed.

ROUND 4: INTERVIEW
6. An interview as the final, summative means of assessment.

Thus applicants are engaged across a spectrum of considerations, by various means, in several formats and with different media. This is in keeping with the nature of architectural education and corresponds with aspects critical to facilitating a student's growth in a studio environment. It is believed that the current selection procedure complements the interdisciplinary tenets entrenched in the Department's teaching approach, summarised by Prof Karel A. Bakker as:

> An encompassing study of the discipline, academic rigour, a non-flag following independence in formulating what architecture – and the role of architecture – could be, an attempt to achieve and maintain dynamic balance in the architectural dualisms of art and science, theory and praxis, past and future, and a striving towards an integrative, traditive, generative design approach that results in a facilitating, contextually relevant architecture that sustains culture and social evolution.[3]

Adhering to these values the objective is now to identify all-rounders having a broad, enquiring, intellectual capacity; those that can be nurtured and sustained through having interest and aptitude. Although this process requires far more input from staff in the process of selection than before, applicants are offered equal opportunity to reveal latent talent that would probably not be discovered through a less intensive process or one that did not value individuals for their own potential and strengths.

When measured against the standard indicators, it is clear that some success has been achieved over the past nine years. The attrition rate in first year has declined from often double-digit figures to around 4%; the pass rate in first year design has been above 92% since 2008. Through-put has increased with more students completing their first degrees in three years and the Department's average graduation rate is now far above the average for all other three-year qualifications at UP. Student numbers have stabilised and retention has markedly increased across the board, while demographic representivity of the student body has consistently, and sustainably, developed. More than 43% of the students registered for architecture in the first year class of 2015 are from previously disadvantaged groups; 52% of the cohort is male and 48% is female.

The selection process and its procedures are now subjected to ongoing review through discussion, evaluation and annual surveys.

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3   Department of Architecture. 2012. ALS introduction report for the visiting board of the SACAP validation panel, 26-28 March 2012. Unpublished report, Department of Architecture, University of Pretoria.

4. THE SELECTION PROCESS: RATIONALES, PROCEDURES AND PROTOCOLS

4.1 ROUND 1: Academic record

Prospective students can apply for admission to the Department's programmes between 1 March and 30 June. They complete the standard UP application forms that must be submitted with supporting documents, including copies of their identity documents or passports, and relevant academic records. The application can be completed in hard copy format and submitted to the Client Service Centre, or it can be lodged electronically through the UP website. The Data Management Centre captures and processes all applications centrally before it is made available to the relevant Admission Officers at the various faculties.

RATIONALE

The current academic prerequisites are the consequence of the history of selection over the course of more than four decades.

Meeting the minimum requirements for admission unfortunately does not guarantee that an applicant will be admitted to study in the Department. The minimum requirements are the first hurdle that applicants must clear at a given level to be considered for selection.

School results, in isolation, offer selectors a limited perspective of certain skills and fail to indicate, or predict, design potential or interest, three-dimensional abilities, social awareness and creativity; these are aspects that must therefore be assessed by other means (see Round 2 and 3).

> **PROCEDURES AND PROTOCOLS**
>
> The Admission Officer is responsible for collating all applications and does a first assessment to determine which applicants meet the minimum requirements for admission, or may do so by the time of registration for the forthcoming academic year. Because applications close at least six months before the final matric results are available, applicants who are in the process of completing their matric are considered on the basis of their final Grade 11 results, with the understanding that if they are provisionally offered a place after selection, they must still meet the minimum requirements in their final exams to retain selection.
>
> Applications from prospective students who obviously do not meet the minimum criteria are rejected, while borderline cases and those meeting the requirements are presented to the Convenor for consideration. This is done through regular sessions attended by Faculty's Admissions Officer, her assistant, the Convenor and the Department's Officer for Student Administration on an ongoing basis from May to as late as August (if necessary).
>
> Applicants are informed of the outcome of Round 1 on the UP Portal (a web-based digital interface) and, if their application is unsuccessful, also by official correspondence. Those who meet the requirements are all invited to the next round of selection and receive an SMS alert to the effect. A document with assignments for the next round and a guide to our selection process is sent to these applicants. For the 2015 intake this document was distributed by e-mail and post, but the latter is proving to be unreliable and planning is underway to limit the distribution via electronic means with the option that applicants can request it otherwise if necessary.
>
> Although the Department does not require of applicants to write the National Benchmark Test (NBT), applicants are advised to do so. In certain cases, especially where an applicant's final Grade 12 results are disputed, the NBT results may be considered if they are available. A typical example of this is when an applicant who was provisionally selected achieves 49% as a final mark in Physical Science, but achieved NBT scores above 65% for Quantitative Literacy and Mathematics. In such a case the applicant will not forfeit his or her place.

4.2 ROUND 2: Home assignments

This round consists of assignments that applicants are required to complete in their own time and with the resources that may be available to them. These assignments are only distributed to applicants who met the minimum requirements for admission and are invited to the test in Round 3. The assignments are submitted on the day applicants take the selection test.

4.2.1 Biographical questionnaire and a short essay

RATIONALE
The first of these assignments, a brief biographical questionnaire, serves to contextualise the application and confirm contact details and other pertinent data that may not be available on the standard UP application form. This includes an applicant's language proficiencies, the last books they read and whether financial aid may be required.

A written motivation is required in which applicants must formulate why they want to pursue one of the architectural disciplines. This serves as vehicle for us to better understand the applicant's motives and aspirations, but it could also reveal strengths in reasoning, communication and, in some instances, conceptual abilities.

The information retrieved through these questions cannot directly penalise or benefit an applicant; it is rather a way of accessing the applicant before one assesses his or her abilities.

4.2.2 Drawings and other assignments

RATIONALE
A series of assignments that require answers with drawings are structured around universal references that involve processes (rather than designed or absolute outcomes). A typical example is the following, taken from Question 9 of the home the assignments for the 2015 intake:

> In design, processes are often crucial to the success of the outcome. With a series of drawings, illustrate the process to prepare this favourite dish [the preceding question asked "What is your favourite dish?"]. Answer on one side of one blank (not ruled) A4 sheet; use media of your own choice.

The question does not require an artful picture, but engages in the visual communication of a process that relates to a familiar item of food. Neither Art nor Engineering Graphics and Design (EGD, as Technical Drawing is now called) is therefore required to complete this assignment.

Other questions typically involve some research and are deliberately structured to allow applicants the opportunity to investigate aspects of the architectural disciplines in order to gain exposure to their chosen profession; it allows for and requires of applicants to formulate their own opinions and is thus intended to access higher order thinking skills in the cognitive domain. Question 10 of the home assignments for the 2015 intake is a typical example of this strategy:

> The Roman architect Vitruvius identified three principles that a good building (and by implication also a landscape or interior) should satisfy: **firmitas** (durability), **utilitas** (utility) and **venustas** (beauty). Choose examples (buildings, structures, landscapes) that, in your opinion, illustrate these principles in an exemplary way; at least one must be a local example. Make freehand pencil sketches on blank sheets of A4 paper and write only one sentence to motivate each choice.

The answers to these questions can reveal a variety of skills, from strategic decision making to visual communication abilities.

4.2.3 Practice visit

RATIONALE

In a developing context, such as ours in South Africa, there is a general lack of awareness of the architectural professions. Learners are often not adequately guided in their selection of a prospective profession as few of the vocational advisors understand the many facets involved in the practice of architecture.

The practice visit, based loosely on the job-shadowing programmes of most Independent Examinations Board schools, offers applicants the opportunity to explore the nature and operation of their chosen profession as 'active clients'. It requires of prospective students to visit practitioners in the three architectural disciplines in order to confirm their career choice and then report on their impressions and, ultimately, the surety of their decision to pursue studies in the field. This approach allows for discovery while informing applicants of the idiosyncratic differentiation between the three programmes.

The Department supports applicants, especially those who do not have easy access to practices in the three fields, by hosting an annual practitioner's workshop. Our objective is also to ensure that reliable information on all three architectural programmes reach as many applicants as possible and so share this information with applicants' parents and siblings, who are often not adequately informed to support them constructively in their choice of profession. The session is programmed around practitioners in the three disciplines who present their work to and discuss their professions with a captured audience of applicants (and their families).

The practice visit is viewed as a task completed by applicants for their own benefit, rather than for the benefit or approval of selectors.

> **PROCEDURES AND PROTOCOLS**
> The home assignments are considered as part of a holistic assessment only after Round 3 has been completed.

4.3 ROUND 3: Test

RATIONALE

Applicants are invited to, on completion of the preparatory assignments, take a selection test that is wholly generated and administered by the Department and follows the example of, among others, the Scandinavian and some Indian schools of architecture.

The structure of the test is set to start with responses to the practice visit, followed by an easily accessible question based on imagination, questions based on general knowledge, current affairs and social awareness so as to assess the frame of reference and discernment of the applicant. Open-ended statements are used to elicit responses and opinions on a wide range of topics. These written responses are followed by drawing-based performance assessments that focus on cognitive and visual memory, observation and communication abilities, creative response and three-dimensional capacity and object manipulation.

As it is logistically impossible to host only one test session, some of the questions vary within this set framework and nuances are tweaked to prevent leaked questions from undermining or influencing the process.

None of the tasks are aimed at design outcomes *per se*, but they do relate to the many facets informing design processes. The intention is thus to assess a candidate's demonstrable aptitude and possible appetite for design from multiple viewpoints over a broad spectrum of possible determinants; in addition the extent and variety of subjects addressed hopefully convey something of the complexity of spatial design beyond the clichéd perception of 'drawing plans'.

Although the tests are taken under strict test and examination conditions, an attempt is made to provide a comfortable setting with appropriate breaks. Carefully chosen music is even played for the duration of some of the drawing-based questions to stimulate their senses and keep their attention.

PROCEDURES AND PROTOCOLS

These tests are not the equivalent of the National Benchmark Test (NBT) and cannot be replaced by another test, nor can they be taken elsewhere. Unlike the home assignments in the previous round, there are no resources available to applicants and time-limits apply. Applicants who cannot attend any of the three annual dates can, with certain preconditions, apply for postal selection instead.

Upon completion of Round 2 – the home assignments – and Round 3 – the test – an applicant's whole portfolio is assessed to narrow down the contenders to a shortlist for the forthcoming interviews. A panel of between six and eight members of staff do the assessment that has evolved into a comprehensive appraisal summarised in a rubric format. Most of the applicants are assessed in one sitting around one table; this allows for cross-checking if there are any uncertainties by an individual assessor.

Only the strongest all-rounder applicants per programme are shortlisted and invited to the interviews. At this stage more than half of the contenders are eliminated from the process; they receive an SMS message that is followed by official correspondence.

The applicants who are shortlisted for interviews are alerted by SMS and/or e-mail and asked to confirm a time and date for their interviews with the Department's Officer for Student Administration.

4.4   ROUND 4: Interview

RATIONALE

The interview is considered to be a vital summative assessment tool as it provides the opportunity to engage personally with applicants in a discursive format that simulates the nuances of a discussion in the design studio. A panel of no less than three, but often more lecturers – including those responsible for the first year studio – conduct an interview of about 10 to 15 minutes as the final stage of selection. The conversation is guided by the specific applicant's submission for Rounds 2 and 3. In the absence of a predeterminate student profile, consideration is given to an individual's character, background, interests and strengths.

PROCEDURES AND PROTOCOLS

The interviews are scheduled for the recess week that falls late in September or early in October on the UP calendar. Appointments for the interviews are grouped in hourly sessions and, typically, applicants are posed a question or two to answer while they wait. All interviews are recorded and applicants are made aware of this procedure when they arrive.

After each interview the panel of selectors express their final deliberations on a candidate's submission in camera by scoring the full application out of 10, with 10 being the highest possible assessment and with the understanding that a mark of 7 is considered the threshold to admission.

After the week of interviews the final assessments are tallied to determine who will be offered places in each programme, who will be placed on waiting lists and who will be rejected. Typically the strongest applicants are patently identifiable and the scoring really only affects placement at the lower end and for determining the order of the waiting lists.

All applicants are informed of the outcome by SMS or e-mail, which is then followed up by official correspondence, either by mail or through digital interface to accommodate the logistics of deposits, preparing for registration and what follows for applicants who are selected.

Applicants who are wait-listed are personally managed by the Convenor and receive regular updates on their position on the waiting list.

4.5   POSTAL SELECTION

As a rule the Department annually receives applications from all nine provinces, from most countries in the Southern African Development Community and from further afield. In the spirit of inclusivity that guides selection, those candidates who are unable to attend a selection test on campus are accommodated through a process of correspondence. In allocating postal selection, preference is given to those applicants who live very far from campus or who are abroad during the selection tests. A written motivation is required before approval is considered and an interview by telephone or video-conference can be granted to those applicants whose names have made the shortlist.

The limited number of postal applications processed annually, and the quality of students it has presented in the past, justify the effort.

APPENDIX TWO

LIST OF APPENDICES ATTACHED TO THE CONVENOR'S REPORT

APPENDIX TWO

LIST OF APPENDICES ATTACHED TO THE CONVENOR'S REPORT

Keuring **selection**

1. Brochure for undergraduate studies
This brochure complemented official UP marketing material and was made available online

2. Timeline
Milestones in the undergraduate selection process for the 2015 intake

3. Invitation & Part A assignments
Applicants received this document after Round 1, i.e. assignments for Round 2 and an invitation to Round 3

4. Applicants' Guide to selection
Applicants received this guide with the documents in the previous annexure

5. Test papers: Part B
First paper taken in Round 3
(used on 22 and 30 August, 5 September)

6. Test papers: Part C & D
Second and third papers taken in Round 3
(used on 22 and 30 August, 5 September)

7. Rubric for Rounds 2 & 3
This rubric was printed in A3 format on the inner cover of each applicant's selection file

8. Postal assignments for Round 3
This set was sent by e-mail to applicants who completed the postal selection option

9. Interviews: Typical documents
Examples of the covers applicants found on their clipboards; typical additional questions applicants answered while waiting; the 'Blue Sheet' they took home

10. Waiting List
E-mail correspondence explaining the waiting list procedure to applicants who were wait-listed

11. Feedback
Examples of correspondence and reports with feedback pertaining to selection in general

12. Example of research output
Article on selection submitted to 'Architecture South Africa' for publication

APPENDIX THREE

REPORTS FROM THE MEMBERS OF THE REVIEW PANEL
(in alphabetical order)

•FASSLER KAMSTRA + HOLMES•
•ARCHITECTS•

21st April 2015

ROGER FISHER
Extraordinary Professor
Acting Head of Department
Department of Architecture
Faculty of Engineering Built Environment + Information Technology
UNIVERSITY of PRETORIA
Lynnwood Road
PRETORIA
0001

Dear Professor Fisher

UNIVERSITY of PRETORIA
SCHOOL of ARCHITECURE
SCHOOL of INTERIOR ARCHITECTURE
SCHOOL of LANDSCAPE ARCHITECTURE
UNDERGRADUATE PROGRAMMES
REVIEW + RATIFICATION of SELECTION PROCEDURES

I would like to thank you for your Approach to me, as a Professional Architect, to participate in the Review + Ratification of Selection Procedures currently in use by your Department for aspirant Students intent on Admission to any of the Undergraduate Programmes offered by your Department.

As a Panel, we have been given the University's Terms of Reference pertaining to the Selection Process - namely :
- Equity
- Transparency
- Dependability
- Defensibility

At the outset, may I say how laudable I find it that you, as a Department, are prepared to subject yourselves + your Selection Procedures to the scrutiny of those outside of the Academic realm. May I also say that my insights are those of one who has :
- been subjected to one of the Selection Procedures previously applied by the University (albeit as applied by another University)
- acted as Critic + Examiner + Employer + Mentor of the "products" of the various Selection Procedures applied by various South African + International Schools of Architecture
- Exposure to Selection Procedures applied by Tertiary Institutions outside of South Africa
- Reviewed the status (in an International context) of various South African Schools of Architecture on behalf of :
  - o SACAP   - South African Council for the Architectural Profession
  - o CAA   - Commonwealth Association of Architects
  - o RIBA   - Royal Institute of British Architects

The Presentation given to us and the Documentary Support available was exemplary – all Credit must be given to Nico Botes – Lecturer and Convenor (Coursework Programmes) – whose Commitment and Enthusiasm over an extended period has placed the University in so envious a position.

I am left totally satisfied as to the adequacy + appropriateness of the Selection Procedures that have been developed + are being applied by your Department. I would go as far as to say that I do not believe there to be any Selection Procedures at other South African Tertiary Institutions (or for that matter others worldwide) which would surpass those of the

University's Department of Architecture + that it would be hard to imagine how they might do so. The Selection Procedures developed and employed are patently :

- Equitable
- Transparent
- Dependable
- Defensible

It should, however, be said that the Qualities that make for good Applicants are not necessarily those that make for good Students and, in turn, those that make for good Researchers / Practitioners – by their very Nature, Selection Procedures must, and always will, be particular to each Institution and to the Value Systems they espouse.

Yours sincerely.

MARCUS HOLMES

B.Arch (Witwatersrand), Pr.Arch(SA), MIA, MGIfA, MPIA, AAArb, RIBA

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EVALUATION REPORT ON SELECTION PROCESS AND

INSTRUMENTS

FOR

DEPARTMENT OF ARCHITECTURE

UNIVERSITY OF PRETORIA

REPORT BY: PROF SARAH HOWIE

JULY 2015

TABLE OF CONTENTS

TITLE   **PAGE**

1 OVERALL SUMMARY OF EVALUATION

I was approached by the Department of Architecture to serve as one of a number of evaluators to examine and evaluate the selection process utilised to select first year students in the Department's three architecture-related programmes at the University of Pretoria. The current selection process has been in place for nine years.

In general my evaluation is positive and supportive of the philosophy, design and processes adopted by the Department of Architecture for its selection process. The process is comprehensive, transparent and supportive to applicants. It combines a variety of appropriate assessment strategies which are relevant to the field and appropriately challenging to the applicants. I would recommend the continuation of their selection processes in a similar vein in the future as I find that it is a fair, valid and reliable selection process. My reasons for this are elaborated further in this report. My recommendations are largely of a minor technical nature to further enhance the current practices.

2 EVALUATION FINDINGS

I found that the selection process is systematic with clear criteria for progression through each phase, which is fully transparent to applicants and which is measurable in a valid and reliable way. The process is also comprehensive incorporating school-based achievements, written assessments, performance assessments, face-to face interviews and multiple opportunities for applicants to showcase their cognitive and non-cognitive abilities to the selection committee.

The process is supportive of applicants from less exposed and less privileged background in terms of both the clearly detailed written supportive materials and the face to face opportunities for exposure to the field of architecture providing learning opportunities for the applicants and clarity in terms of the specialisations available; the tertiary environment and the application processes required.

The actual written application processes and assessments are transparent and supportive to applicants. The process combines a variety of appropriate assessment strategies, which are relevant to the field and appropriately challenging to the applicants. Furthermore the selection process is explained to candidates regarding the limitations of what is possible as well as the consequences of each step in the process. There is no ambiguity with regard to the expectations of applications regarding the process and actions required.

It is clear that the Department is looking beyond the immediate school-based curriculum specific academic performance. Given the changes in the schooling system and fluctuations in quality of the outcomes from the schooling sector this is a wise. Beyond identifying the limitations present in the schooling system, the Department has adopted an innovative approach in its emphasis on more global competencies and 21st skills. These form foundational competencies for the field of architecture and this is supported by the adoption of these broader competencies by forward thinking nations and education systems internationally, which is supported by ongoing research in education and a strong drive by industry.

The assessments test a range of knowledge, skills and attitudes. Various competencies are assessed via written tests, performance assessments and face

to face interviews. The three tests are comparable in terms of what they measure and would be reliable over time given the rubric in place. The assessments test general and field specific knowledge both of which are critical to the architecture field in multiple dimensions; spatial ability; problem-solving ability; language fluency; inferential ability; and creativity in a non-judgemental approach.

3 TECHNICAL QUALITIES

Overall the technical quality of the process and instruments is very good. I do feel however that the combination of the Afrikaans and English forms side by side and the use of italics for the English does increase the reading load and difficulty for applicants to complete the forms. I would recommend splitting them and making them sequential despite the increase in the amount of paper. I feel that this would enhance the current presentation.

4   CONCLUSIONS AND RECOMMENDATION

I conclude that philosophy, design and processes adopted by the Department of Architecture for its selection process is valid and reliable in addition to being fair. The process is comprehensive, transparent and supportive to applicants. It combines a variety of appropriate assessment strategies which are relevant to the field and appropriately challenging to the applicants.

I would recommend the continuation of their selection processes in a similar vein in the future as I find that it is a fair, valid and reliable selection process with quite some innovation and appropriate thinking for the 21st century. My recommendations are largely of a minor technical nature to further enhance the current practices as outlined above regarding the presentation and readability of the forms.

I am available for discussion of this report should it be required and I would like to thank the Department for their invitation to evaluate their process.

PROF SARAH HOWIE
July 2015

15 April 2015

Report on the selection procedures for entry into the programmes in the Department of Architecture, Faculty of Engineering, Built Environment and Information Technology

After applying various selection procedures since 1971 the Department designed a new procedure during 2006. A lot of effort and research went into the creation of this procedure.

At present the Department's selection procedure can be described as impressive, very sophisticated and refined, the likes of which members of the panel have not encountered before. It's implementation calls for a lot of dedication by members of staff, it is time consuming and necessitates meticulous record keeping.

It is a wide ranging procedure that evaluates the candidate's academic record, home assignments an aptitude test and ends with an interview. But the effort has paid off as can be seen from the low attrition rate and the very high throughput rate.

Personally I am of the opinion that the procedure conforms to the requirements of due process. The University requires that the Department selection procedures are equitable, transparent, dependable and defendable. After two and a half hours deliberation I am satisfied that this is the case and that the procedures are therefore in line with our constitutional values.

Prof D G Kleyn
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END OF THIS MEMORANDUM

APPENDIX 5   EXAMINERS' COMMENTS AND CANDIDATE'S RESPONSES

This appendix records comments received from the three examiners and the candidate's responses. The candidate wishes to thank all of the examiners for their thorough, thoughtful and engaging comments and feedback on the study.

12 February 2018

EXTERNAL EXAMINER ONE
Dr Andrew S. Roberts (PhD), Welsh School of Architecture, Cardiff University, Cardiff, United Kingdom

This is an engaging and well written Ph.D thesis. It was enjoyable to read and provides some useful insights that can potentially be taken forward as part of policy development by schools of architecture. It was well structured and the conclusions reached related well to the original research question.

Noted with appreciation.

If there is one concern with the thesis, it is that the research method chosen, and the data uncovered, are largely from archival research and does not present itself well for reaching high levels of critical analysis, that might normally be found in a Ph.D. The thesis places a particular emphasis on the assembly of existing data into a time-line and its strengths lie in its thoroughness. Praise must be given for uncovering a substantial body of knowledge from the archives.

While some of the data for the episodes before 2007 had to be uncovered and reconstructed from archival sources, it was necessary for the researcher to analyse and critically engage with this (and other) information in order to frame it in terms of current academic practice and ultimately to make it accessible in the chosen format of a narrative. Although it may, in parts, appear as an accessible and descriptive text, this was the result of thorough comparison and critical analysis by the researcher.

I would be keen to engage the candidate in further discussion with regards to the questionnaire that was sent out, particularly in terms of how representative those who responded were of their institutions and schools. Furthermore, I would be interested to find out more about the institutional pressures that inevitably impact on admissions procedures, as these didn't come through in the survey. The survey provides some useful findings, but it appears to have been isolated to a single chapter, and there is potential for this to be drawn into the conclusions to a greater extent (see modifications section).

For all but one of the respondent institutions the respective heads of department, directors or academic leaders of the schools appointed or requested the member of staff responsible for the selection of beginner students to complete the survey on behalf of the school. In one instance the person responsible for selection volunteered to participate and communicated such to the director of that school. It can therefore be assumed that the data was representative of the school's selection procedures at the time and were well informed. While not addressed directly, institutional pressures were mentioned in section 13 of the questionnaire (Chapter 4.6.14) where respondents were asked how they would change, improve refine or revise their current procedures. With hindsight your comments highlight some of the shortcomings of the survey.

There are also some points of clarification needed with regards to the specific tests and tools used at various points in the history of the School and these could form a useful conversation during the viva. It's not always clear why some are considered to be architecture specific tests, when they are not specifically designed for architecture students. It would also be interesting to discuss the use of the Rorschach tests which seemed surprisingly reliable at the time as a means of selecting students of architecture. I'm also interested in whether was the Rorschach test was presented to groups as is

Noted for discussion.

suggested on page 105 and what implications this might have had. Furthermore, it is interesting to note the focus on professional experience as a selection tool. Can this not provide misconceptions of the nature of architectural education, especially if the School's ethos is not to create a microcosm of practice.

Whilst the author argues that the changes to the admissions methods mirror changes to the curriculum, this connection could perhaps have been made clearer in the body of the text. The curriculum tends to be stated in terms of course content, yet in architecture, it might be argued that we are not selecting students for their capacity to learn the content, but more to engage with a thinking process (design) that they will not have experienced in their prior education.

The strongest correlation between the curriculum and admission procedures occurred between 1971 and 1984 (Episode 1a – see Chapter 5.7.6) that followed on Herholdt's research by that relied heavily on a task-analysis of the curriculum that was then paired with psychological tests. The direct correlation waned between 1995 and 2006 during the interregnum and has since featured in selection in as much as the curriculum finds application within the context of the academic intentions and normative position of the School. In that sense the current system engages a more holistic and designerly approach than the direct correlation of earlier years and thus was not made pertinent in the latter chapters of the study.

A further area where questioning might be sought is into the changing administrative culture of the school, particularly in relationship to the academic vision. The data presented appears to suggest that the decision-making processes in the school has changed over time (although it would be useful to seek clarity on this). For instance it reads as if later decisions were taken for intuitive, culture driven reasons, whereas the earlier decisions appear to be more data driven. This may be a reflection of the author's current knowledge of the school, compared with documentation that can only be found in an archive.

There has been a sense of continuity in terms of the administrative culture of the school. At present the general perception is actually that the administrative culture of the School is rigorous and it would therefore be inaccurate to tag later decisions as triggered by intuition or purely driven by cultural considerations. The influence of the respective Heads certainly impacted on this aspect over time, but more so in developing a cumulative normative stance on the role of the School and its academic endeavours that is also reflected in the administrative component. In this sense it is true that earlier administrative decisions were mostly informed by an academic-scientific approach, or data if you wish, but this has evolved without losing its thoroughness or the hard informants that must be defended to the Dean and the Faculty. Apart from the archival sources this opinion is also based on my personal, albeit therefore biased, experience as I have been involved with the Department for more than 31 years, both as prospective student, student and member of the academic staff.

The use of attrition rates, as a measure of the success of the different methods of selection runs as a clear theme throughout the thesis and this is helpful. There is less said about eventual performance of the students, so I wondered if there was any data available to link eventual performance with admission scores. This might be

It has been said that the best measure of a successful selection system would be to track the contribution of the students selected after graduation in their professional and practice outputs, but this is another study altogether. The performance of students after their first year of

particularly possible with results from the most recent selection tests. It may also have been possible to have looked at trends in conversion rates (those students accepting places, once an offer had been made). Furthermore, it is possible that attrition rates may have been impacted on by changes to the population and other external factors. The author recognises that this impacts on the success of some of the measures. It would also be helpful to have more data on the impacts by different sectors of society, gender, race etc ... The thesis talks about racial balance varying from year to year (p165), but what might be the reasons?

study was partly addressed in the high rates of passes and graduation recently achieved in the undergraduate programme as a whole – see Chapter 6.5.21.

Conversion rates at UP are usually far above 80%, but this fluctuates. In a developing context with an economy in a state of flux and in light of logistics that may be unique to the realities of the Global South, there are many factors that influence whether applicants are able to accept and see through their intentions to study in a particular programme at a specific institution. The availability of funding is often a critical decider in this respect. This also partly addresses the last question about the variance in demographic data, which may be further discussed.

REQUESTED MODIFICATIONS:

The author ends each chapter by returning to the sub-problems and suppositions made in the introduction. In all cases the author claims that the data shows that the suppositions had been met. It may be helpful to expand these sentences to sum up the findings above so that the link between the suppositions and the evidence is made clearer. This would require a brief explanation of how the evidence demonstrated that the supposition had been met.

The intention was to keep the concluding argument in each chapter brief and to discuss how the suppositions were addressed in the 'Summary' that precedes the 'Conclusion' of each the chapter. The wording has now been adapted where the sequence was not explicitly clear.

The link between the curriculum and the admissions processes needs to be made clearer in the text.

This point was addressed in the fifth comment above.

Whilst the thesis concludes with respect to the University of Pretoria, for this to be more widely valuable, it would help for the conclusions to be cast within the context of the entire South African, or possibly global system. Given that data was collected as part of a questionnaire from a number of schools, it may be helpful for the author to return to this data in the conclusion, and compare and contrast the outcomes from [UP] with that of other institutions. The thesis ends by effectively saying that [UP]'s system is successful (p172), but other institutions offer different systems, but no-doubt claim that they are successful too.

Noted. In addition I would like to clarify that the national survey served to establish a first understanding and framework of local practice, which did not exist before this study. Not all of the respondent institutions could provide firm data so as to enable more detailed comparisons, which made it difficult to interpret Sections 11, 12 and 13 of the survey quantitatively for comparison. While some quantitative data were harvested, your comments highlight some of the possible shortcomings of the survey.

An important consequence of the study was to highlight that the possible success of a selection regime does not only depend on the quantitative outcomes that, if they were available, could easily be compared, but also that the success of a selection system could be measured by how it dovetails with the school's academic intentions and normative position. The fact that the study argues

that the School's selection system is currently successful does not, in any way, imply that the procedures followed by others are less successful. Three of the ten respondent institutions in fact indicated that their current systems worked "relatively well", which should be read as an indication that they view their selection practices as successful.

EXTERNAL EXAMINER TWO
Prof. Mark R.O. Olweny (PhD), Faculty of the Built Environment, Uganda Martyrs University, Kampala, Uganda

1. GENERAL THOUGHTS

It was a pleasure reading through this thesis, which was both an evidently personal engagement for the researcher, but also a reflective journey for me as the examiner as it related to my own journey in the transformation of the intake criteria in my own university. This thesis takes a bold step in seeking to bring forth an appreciation of the use of intake criteria for schools of architecture in South Africa, and more specifically, the developments in the School of Architecture at the University of Pretoria. These two engagements are to be applauded, given the on-going calls to decolonise and transform architectural education not only in South Africa, but increasingly across the globe as well. This starts with a firm appreciation of the status quo, and how it was arrived at. In this case, that exploration meant delving into the archives at UP, something not to be taken lightly as this required a lot of patience and stamina. The result in this case is a thesis that makes a significant contribution to our appreciation of the transition into architectural education by incoming students, and how schools of architecture strive to ensure students are not only aware of profession, but also what architectural education itself is about. The criteria in effect act as a two-way selection. The thesis makes a valuable contribution to our appreciation of the intake criteria used in South Africa, and could be the basis for a wider study for a similar study across Africa, and to instigate discussions of how to make architectural education more equitable. On a personal note, as stated above, there are uncanny parallels between the story of intake criteria in UP and my own experiences at the Uganda Martyrs University (UMU), likely a consequence of UMU being in a similar position to UP, as a second school to Wits, and needing to distinguish itself.

Noted with appreciation.

While the overall thesis is well put together and is on the whole a pleasure to read, there are a few areas within the thesis that require attention to ensure the document meets the aims and objectives of a PhD. These largely relate to the presentation of the information, which in its

Noted with appreciation. Where suggestions for improvements could be accommodated, it has been effected into the final document. While certain suggestions, including those that have bearing on the structure of certain chapters, are appreciated, it

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current form detracts from the extensive research work undertaken. This is particularly evident in the early chapters of the thesis (Chapter 2 and 3), which are not presented in a format that leads to a full appreciation of the value of the research. I would be inclined to revise these chapters to better communicate their intentions. Currently they are formatted the same as the studies in Chapters 4, 5 and 6, an approach that makes them somewhat taxing to read. Chapters 5 and 6 of the thesis are very well put together, and provide a valuable historical outline of how the intake of students into architecture at UP has evolved over the years, seeking to address the challenges of the time. It is interesting that it came a full circle after 40 years, and been rebooted after 2007 to reengage with the selection criteria. What is not clear is the full impact of the changes, which could be presented as quantitative information (graphs of charts). A key part of the thesis is the validation of the selection criteria, as presented in Chapter 6. This is an extremely important part of the study, and something that should be given more weight in the write up, and it supports the thesis as a 'live process'. It would also be a key contribution to other schools as well.

While a substantial part of the comments are included in the PDF document itself, following are some key amendments and corrections that are required:

2.   INTRODUCTION AND LITERATURE REVIEW

2.1 The thesis is rich in information derived from the different sources across the globe, and scaffolded on the work of Goldschmidt et al. (2000) and Salama (2005/2015). The literature review at times presumes the audience is familiar with the work, and does not give full details as needed. This occurs in presenting Gropius (p.32); The South African colonial heritage (p.33); The pass mark for matriculation, among others. These should be reviewed.

3.   METHODOLOGY AND METHOD

3.1 The methodology which included three key elements: the literature review, the questionnaire study and the document and reflective analysis are robust, and well executed, and give a valid set of outputs that lend themselves to discussions and conclusions. The significance of document analysis are often overlooked in thesis, but are particularly relevant for the purpose of such archival research. It is unfortunate that this process is not possible in much of Africa, as documentation is not well kept.

has not always been possible to implement these for reasons that can be discussed during the viva.

Where suggestions for improvements could be accommodated, it has been effected into the final document.

Noted; as stated in the (newly added) section on the contributions of the research – see Chapter 7.3 – the study affirms and acknowledges institutional repositories and archives as invaluable sources of knowledge in research endeavours.

4.   DATA REPORTING AND INTERPRETATION

4.1   There are a few spelling and grammatical errors, as well as run-on-sentences, and single sentence paragraphs. Check the economy of writing to prevent the document from becoming too fragmented.

Where suggestions for improvements could be accommodated, it has been integrated into the final document. Thank you for pointing them out.

4.2   A key challenge was seen in the literature review, which is presented the same way as the research Chapters 5 and 6. This makes it difficult to follow at times.

In this respect the study may be at variance with other formats. A general literature review was summarised as part of Chapter 1, but it was also stated on page 4 that the main review of literature would be introduced and reviewed in the chapters where it is pertinent to the discussion so as to avoid confusion and a disconnect between literature and argument.

4.3   There are some nuances that are particular to South Africa. These need to be adequately explained such that an international audience appreciates what is being communicated (See p.18, p.21, p.30). It would also be useful to indicate which the SA provinces were (p.34).

Where suggestions for improvements could be accommodated, it has been effected into the final document.

4.4   There are some sequencing challenges evident (p.38) where the 1960s conferences were affected by an activity in 1972.

4.5   While in theory presenting the results using "respondent" is appropriate, this is confusing and somewhat misrepresentation. The questionnaires were filled out by individuals, on behalf of an institution or school of architecture, and consequently represent the institutional position. As such, they should be presented as "responding institution" or using some other adjective.

Noted and clarified in the text.

4.6   Chapter 2 makes for a good historical perspective of architectural education, but does not explicitly address intake criteria. While this may have been intentional, it can leave the reader somewhat confused as it deviates from the objectives of the thesis. Maybe try and add some clarification of why this has been done.

Chapter two does not mention the requirements for admission or assessment tools as it was intended to present the context for the remainder of the study by examining the context of architecture, the context of an education in architecture and the context of an education in architecture in South Africa. A clarification was added to the text.

4.7   In the engagement with historic precedents, one missing is the Russian VKhUTEMAS, which was started in parallel to the BAUHAUS, and significant for sub-Saharan Africa (although not specifically for South Africa).

For the Vkhutemas, the main challenge was finding primary sources with meaningful information other than the briefest of outlines of their admission policies in an accessible language.

4.8   Check pagination. Some titles fall at the bottom of the page (#100, #101, #152)

Thank you for pointing them out – it has been addressed and resolved.

5. FIGURES, TABLES AND EQUATIONS

5.1 In some cases tables or graphs would be beneficial to aid the appreciation of the quantitative data, such as the improvement of retention rates over time, or the changes in student intakes from various background. The textual information is not as dramatic in communicating this information.

Where suggestions for improvements could be accommodated, it has been effected into the final document. However, the study remains in the format of a qualitative narrative informed by mixed research methods; this decision was necessitated by a need for consistency as the study covers a period of forty-five years and some of the key data (or lack thereof in earlier episodes) did not allow for accurate or complete translation into visual formats, which would have resulted in a number of inconsistencies that could have undermined its integrity.

5.2 There is a lot of description of the instruments used over the years. While it is understandable that the current instruments may not be available due to competition, it would be good to have excerpts of these.

While one or two examples are mentioned to make a point, I believe that the focus of the study is more on the underlying principles than on the specificity of the selection tools. Unfortunately revealing more examples may additionally undermine future selection processes.

6. CITATION AND REFERENCES

6.1 While the paper states it is using the Harvard referencing system, this is not always consistent. In some cases authors are missing and only dates are provided. In some instances full reference is provided, but not in other cases. All references need to be reviewed for consistency and accuracy.

6.2 When multiple sources are cited, these should be presented either in alphabetical order or in chronological order (Example p.14).

6.3 A number of references are incorrectly cited, more an oversight, more so when there are multiple publications in one year, stated on the reference list, but not provided in the body of the thesis.

[…]

6.6 A key reference missing from the discussion is Crinson and Lubbock (1994). This would greatly aid the discussion on global issues in architectural education.

This may be due to different institutional requirements. For references without pagination, or in instances where the whole work is being referenced, a date should suffice. Other suggestions have been improved on, including your points 6.2, and 6.3. Thank you for pointing them out.

INTERNAL EXAMINER

Prof. Chrisna du Plessis (PhD), Department of Architecture, University of Pretoria, Pretoria, South Africa

The study aims to critically assess the selection of beginner architecture students at the University of Pretoria for the period 1971 - 2016. To achieve this aim, the candidate identified four sub-problems that needed to be addressed. These included an investigation into historical selection practices at architecture schools; selection practices used in South African architectural learning sites; and an overview of the development of the selection practices at the Department of Architecture at the University of Pretoria, structured in three 'episodes'.

The document and its narratives are well-structured and clearly presented; the methodologies used to investigate each of the sub-problems are suitable and valid; and the findings in each chapter are well-argued. The study presents an interesting and useful overview of the practices of selection used in architecture schools across the world and the value of the different approaches in determining student success (or not), based on which the researcher makes some normative conclusions.

Noted with appreciation.

The study found that selection as a general practice can be attributed to the mismatch between a considerable number of applicants competing for a very limited number of available places, determined by the resource-intensive nature of architectural education. Eight main assessment tools were identified, with the most common being academic performance at secondary education level and aptitude tests, with tools often being used in combination. However, there is considerable debate regarding the usefulness of these tools as stand-alone predictors of success in the study of architecture. An interesting further finding is that while architectural learning sites in South Africa do use many of the assessment procedures and tools used internationally, there are distinct regional differences that arose as a result of the realities of the local context, particularly the need to address inequalities as result of past political ideologies. In investigating the selection practices at the University of Pretoria, the study revealed a thorough, research-informed assessment system that was aimed at selection from a particular demographic cohort. As South Africa moved into another political dispensation, this was replaced by a simpler system informed by general managerial policies and based mainly on scholastic performance. This was found to dramatically skew the demographic profile of the student cohort and resulted in lowered success rates. The assessment system was then replaced with a three-part assessment process making use of multiple assessment tools combined in a nuanced manner which allows the Department to select candidates who show the qualities required for success in a very challenging programme and who are in alignment with the ethos of the Department. Under this new approach the selection process at the University of Pretoria became one of the most comprehensive in the world, leading to marked improvements in the academic outcomes of first year students and the programme in general.

Noted with appreciation.

While the examiner can identify several contributions to the field of architectural education, it is not clear that the

Explicated and added to Chapter 7 as suggested.

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candidate understands the contribution this study makes to his chosen field. As the ultimate test of a PhD is that it contributes new knowledge, it is essential that the candidate can clearly demonstrate his ability to situate the study within the field so as to identify the specific knowledge gaps that the PhD study addresses and how it filled these gaps. The thesis is still missing this vital component and it is required that the candidate provides a short section in the conclusions describing the contribution of the study.

There are furthermore a number of small errors in the document, indicated in the marked-up PDF copy of the document included with this report.

The errors indicated in the text were corrected. Thank you for pointing them out.